



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,353	09/24/2003	James Mark Sharpe		2352

7590 12/20/2006  
Jim Sharpe  
3 Copper Lane  
Mt Crested Butte, CO 81225-5310

EXAMINER
----------

LU, KUEN S

ART UNIT	PAPER NUMBER
----------	--------------

2167

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/20/2006	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/605,353	<b>Applicant(s)</b> SHARPE ET AL.	
	<b>Examiner</b> Kuen S. Lu	<b>Art Unit</b> 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The Action is responsive to Applicant's Application filed September 24, 2003. Please note Claims 1 and 2-8 are pending.

#### ***Abstract***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The Abstract is objected to because it exceeds 150 words in length. Also objected to is that it contains phrases like "... of this invention ..." which can be implied. Correction is required.

#### ***Claim Objections***

3. Claim 3 is objected to because of the following informalities:

The claim does not end with a period. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 101***

- 4.1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

- 4.1.1. As set forth in MPEP 2106 (II) (A):

The claimed invention as a whole must accomplish a practical application. That is, it must produce a

Art Unit: 2167

"useful, concrete and tangible result." State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); In re Ziegler, 992, F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). Accordingly, a complete disclosure should contain some indication of the practical application for the claimed invention, i.e., why the applicant believes the claimed invention is useful.

Apart from the utility requirement of 35 U.S.C. 101, usefulness under the patent eligibility standard requires significant functionality to be present to satisfy the useful result aspect of the practical application requirement. See Arrhythmia, 958 F.2d at 1057, 22 USPQ2d at 1036. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make the invention eligible for patenting. For example, a claim directed to a word processing file stored on a disk may satisfy the utility requirement of 35 U.S.C. 101 since the information stored may have some "real world" value. However, the mere fact that the claim may satisfy the utility requirement of 35 U.S.C. 101 does not mean that a useful result is achieved under the practical application requirement. The claimed invention as a whole must produce a "useful, concrete and tangible" result to have a practical application

#### 4.1.2. As set forth in MPEP 2106 (IV) (B) (1):

Claims to computer-related inventions that are clearly nonstatutory fall into the same general categories as nonstatutory claims in other arts, namely natural phenomena such as magnetism, and abstract ideas or laws of nature which constitute "descriptive material." Abstract ideas, Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759, or the mere manipulation of abstract ideas, Schrader, 22 F.3d at 292-93, 30 USPQ2d at 1457-58, are not patentable. Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data. Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory).

#### 4.1.3. As set forth in MPEP 2106 (IV)(B)(1)(a):

Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. Accordingly, it is important to distinguish claims that define descriptive material *per se* from claims that define statutory inventions.

Art Unit: 2167

Products may be either machines, manufactures, or compositions of matter.

*A machine is "a concrete thing, consisting of parts or of certain devices and combinations of devices."* *Burr v. Duryee*. 68 U.S. (1 Wall.) 531, 570 (1863).

If a claim defines a useful machine or manufacture by identifying the physical structure of the machine or manufacture in terms of its hardware or hardware and software combination, it defines a statutory product. See, e.g., *Lowry*, 32 F.3d at 1583, 32 USPQ2d at 1034-35; *Warmerdarn*, 33 F.3d at 1361-62, 31 USPQ2d at 1760.

Office personnel must treat each claim as a whole. The mere fact that a hardware element is recited in a claim does not necessarily limit the claim to a specific machine or manufacture. Cf. *In re Iwahashi*, 888 F.2d 1370, 1374-75, 12 USPQ2d 1908, 191 1-12 (Fed. Cir. 1989), cited with approval in *Alappat*, 33 F.3d at 1544 n.24, 31 USPQ2d at 1558 n\_24.

**4.2.** Claims 1 and 2-8 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

As per claim 1, the claim describes a method for using a software system to address regulatory compliance requirements comprising a model. Claim 1 recites the mere manipulation of data or an abstract idea, or merely provides some functional description of a data structure. A practical application exists if the result of the claimed invention is "useful, concrete and tangible". A "useful" result is one that satisfies the utility requirement of section 101, a "concrete" result is one that is "repeatable" or "predictable", and a "tangible" result is one that is "real", or "real-world", as opposed to "abstract". Claim 1 merely manipulates data structure and fails to produce a useful, concrete and tangible result as required by the practical application test. Consequence is non-statutory. Applicant is also advised to provide a written explanation of how and why the claimed invention (either as currently recited or as amended) produces a useful, concrete and tangible result.

As per claims 2 and 3-8, the claims inherit the deficiency of being non-statutory from

claim 1 directly or indirectly, and do not remedy the deficiency individually or by inheritance. The consequence is non-statutory.

***Claim Rejections - 35 USC § 102***

**5.** The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

**5.1.** A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**5.2.** Claims 1 and 2-8 are rejected under 35 U.S.C. 102(e) as anticipated by Goldsmith et al. (U.S. Patent 6,526,443, hereafter "Goldsmith").

As per claim 1, Goldsmith teaches "A method for using a software system to address multiple regulatory compliance requirements (See col. 3, line 49 – col. 4, line 5 where software agents mediates the creation, validation and secure sharing of regulatory information over internet to interface human users) comprising a unified, ontology-based model (See col. 3, lines 63-65 and col. 4, line 64 – col. 5, line 1 where the software agents mediates information from forms with diverse ontologies and a real-time transaction centric model of the border-crossing process) representing both the regulatory legislation and the state of the organizations required to comply (See col. 5, lines 11-21 where the model represents process the governments of U.S. and Mexico

and commercial entities required to comply), in combination with one or more reasoning elements that operate against the model (See col. 6, lines 35-51 where software agents improve the border processing in the manner that elicitation agents can have significant knowledge about domain and forms and are able to use case-based reasoning mechanism to present partially-instantiated documents)”.

As per claim 2, Goldsmith teaches “A method of claim 1 wherein the reasoning capability is provided by the direct support of the ontology language” (See col. 6, lines 35-51 where software agents improve the border processing in the manner that elicitation agents can have significant knowledge about domain and forms and are able to use case-based reasoning mechanism to present partially-instantiated documents and at col. 3, lines 63-65 and col. 4, line 64 – col. 5, line 1 where the software agents mediates information from forms with diverse ontologies and a real-time transaction centric model of the border-crossing process).

As per claim 3, Goldsmith teaches “A method of claim 1 wherein the reasoning capability is provided by elements external to the ontology knowledgebase” (See col. 6, lines 35-51 where software agents improve the border processing in the manner that elicitation agents can have significant knowledge about domain and forms and are able to use case-based reasoning mechanism to present partially-instantiated documents).

As per claim 4, Goldsmith teaches "A method of claim 1 wherein the ontology model of the regulatory compliance legislation is automatically created by a text analysis system operating on the text of the legislation and producing elements in the knowledgebase" (See col. 6, lines 35-51 where software agents improves the border processing in the manner that elicitation agents can have significant knowledge about domain and forms and are able to use case-based reasoning mechanism to present partially-instantiated documents, and at col. 5, lines 11-21 where the software model represents process the governments of U.S. and Mexico and commercial entities required to comply).

As per claim 5, Goldsmith teaches "A method of claim 1 wherein the ontology model of the regulatory compliance legislation is automatically updated by a text analysis system operating on the text of the legislation and producing elements in the knowledgebase" (See col. 6, lines 35-51 where ontology model of the regulatory compliance legislation is automatically created by a text analysis system by software agents to improve the border processing in the manner that elicitation agents can have significant knowledge about domain and forms and are able to use case-based reasoning mechanism to present partially-instantiated documents, and further at col. 5, lines 11-21 where elements in the knowledgebase is produced by the model represented by process the governments of U.S. and Mexico and commercial entities required to comply).



As per claim 6, Goldsmith teaches "A method of claim 1 wherein the unified model addressing the regulatory requirement is used to analyze electronic communications for compliance" (See col. 3, lines 53-56 where the model of software agents mediates the creation, validation and secure sharing of shipment information and regulatory documentation over the Internet, using World Wide Web to interface with human users which addresses regulatory requirement is used to analyze electronic communications for compliance).

As per claim 7, Goldsmith teaches "A method of claim 1 wherein the unified model addressing the regulatory requirement is used to analyze network activity for compliance" (See col. 3, lines 53-56 where the model of software agents mediates the creation, validation and secure sharing of shipment information and regulatory documentation over the Internet, using World Wide Web to interface with human users which addresses requirement is used to analyze network activity for compliance).

As per claim 8, Goldsmith teaches "A method of claim 1 wherein the unified model addressing the regulatory requirement is used to analyze relationships between electronic communication, and network activity for compliance" (See col. 6, lines 35-51 where ontology model of the regulatory compliance legislation is automatically created by a text analysis system by software agents to improve the border processing in the manner that elicitation agents can have significant knowledge about domain and forms and are able to use case-based reasoning mechanism to present partially-instantiated

documents, and further at col. 5, lines 11-21 where elements in the knowledgebase is produced by the model represented by process the governments of U.S. and Mexico and commercial entities required to comply).

### ***Conclusion***

#### **7. The prior art made of record**

A. U.S. Patent No. 6,526,443

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

B. U.S. Patent Application 2005/0154690

C. U.S. Patent Application 2005/0034072

D. U.S. Patent No. 6,988,109

E. U.S. Patent No. 6,658,627

U. Tamma et al.: A knowledge model to support inconsistency management when reasoning with shared knowledge, Department of Liverpool, Liverpool, UK, 2001

V. Tamma et al.: An ontology based approach to automated negotiation, Department of Liverpool, Liverpool, UK, 2001

W. Tamma et al.: An enriched knowledge model for formal ontological analysis, Department of Liverpool, Liverpool, UK, 2001

X. Vasconcelos et al: Reasoning in corporate memory systems: a case study of group competencies, Department of Computer Science, University of York, York, UK, 2001

### ***Contact Information***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuen S. Lu whose telephone number is (571) 272-4114. The examiner can normally be reached on Monday-Friday (8:00 am-5:00 pm). If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 703-305-39000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for Page 13 published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 703-305-3900 (toll-free).

Kuen S. Lu   
Patent Examiner, Art Unit 2167

December 14, 2006